

No. 753,698.

PATENTED MAR. 1, 1904.

I. H. HAAS.  
SPRING BED.

APPLICATION FILED APR. 6, 1903.

NO MODEL.

Fig. 1.

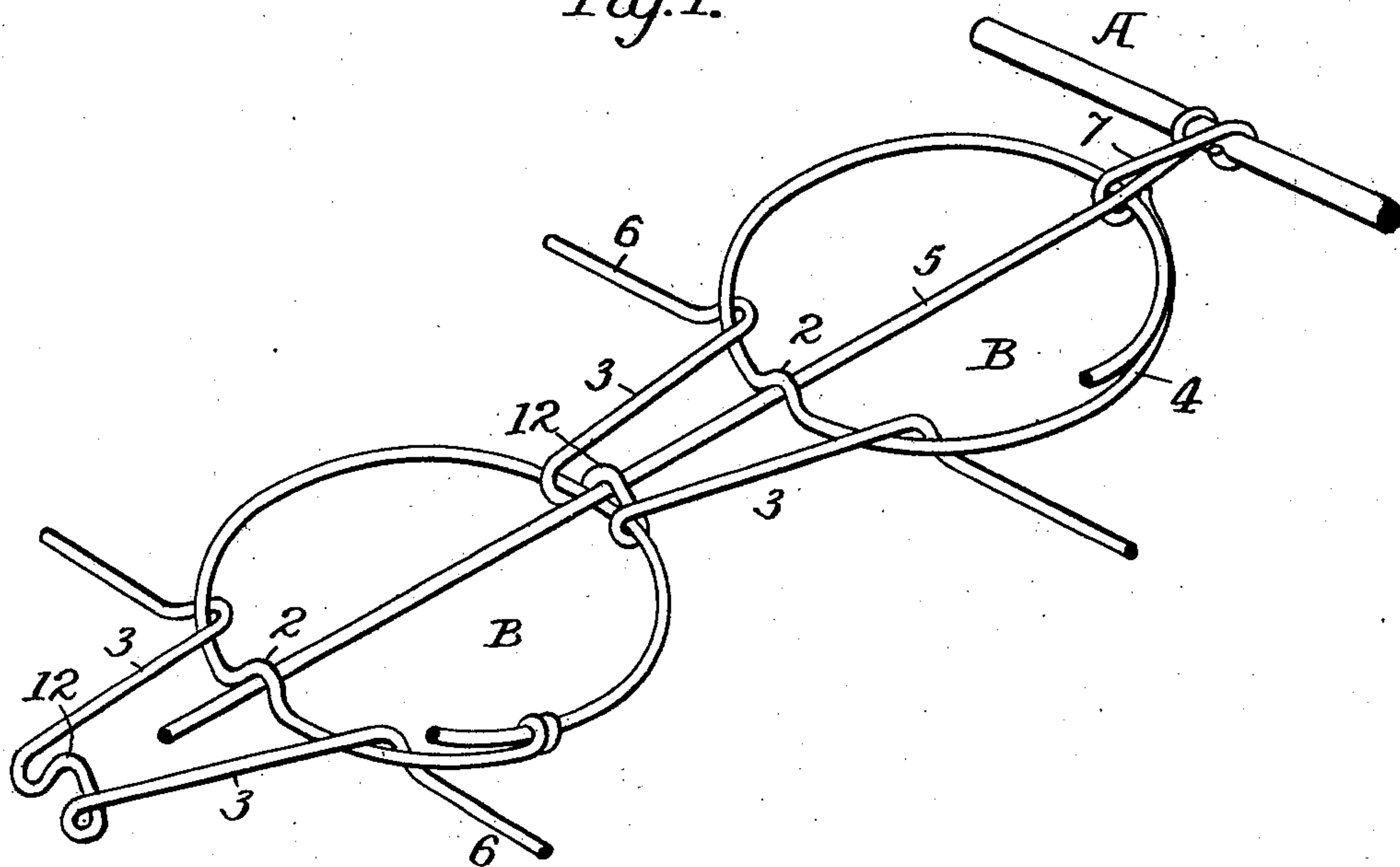


Fig. 2.

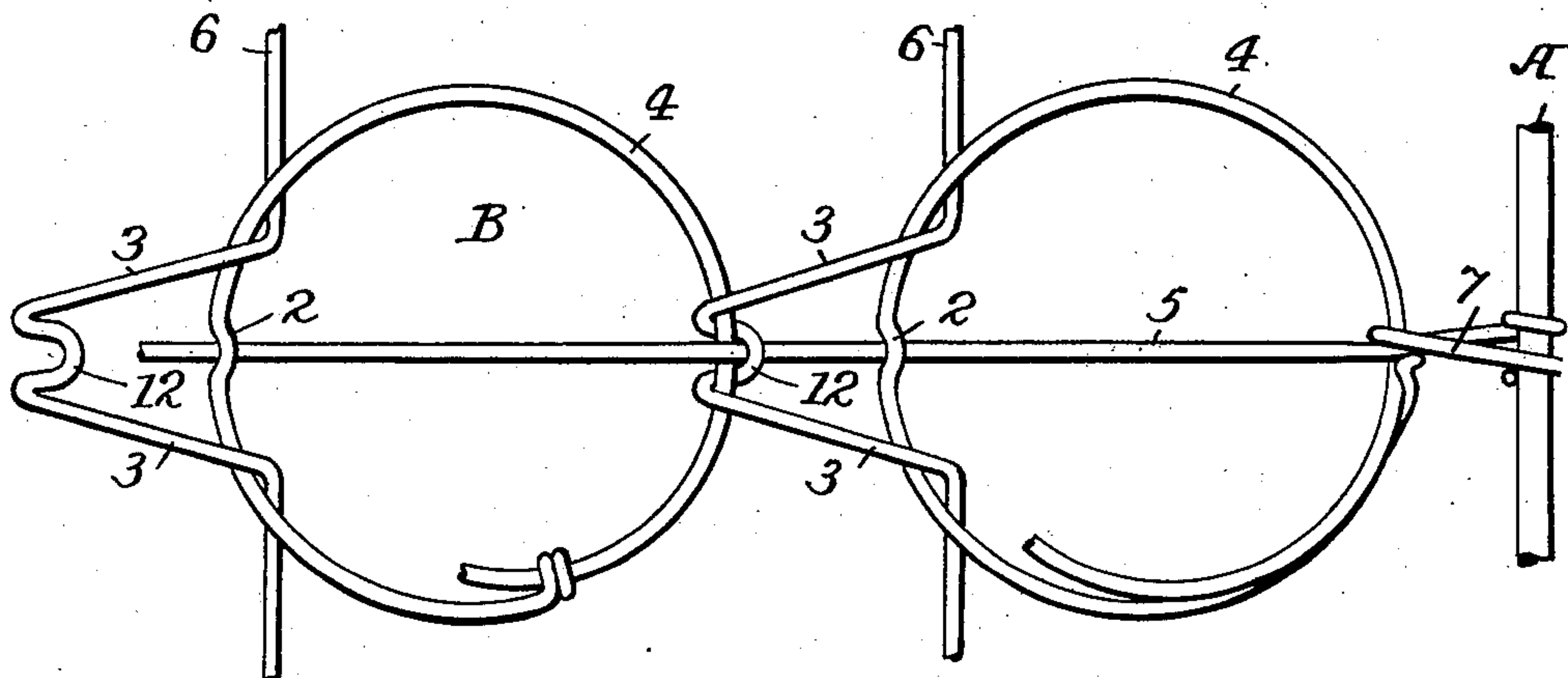
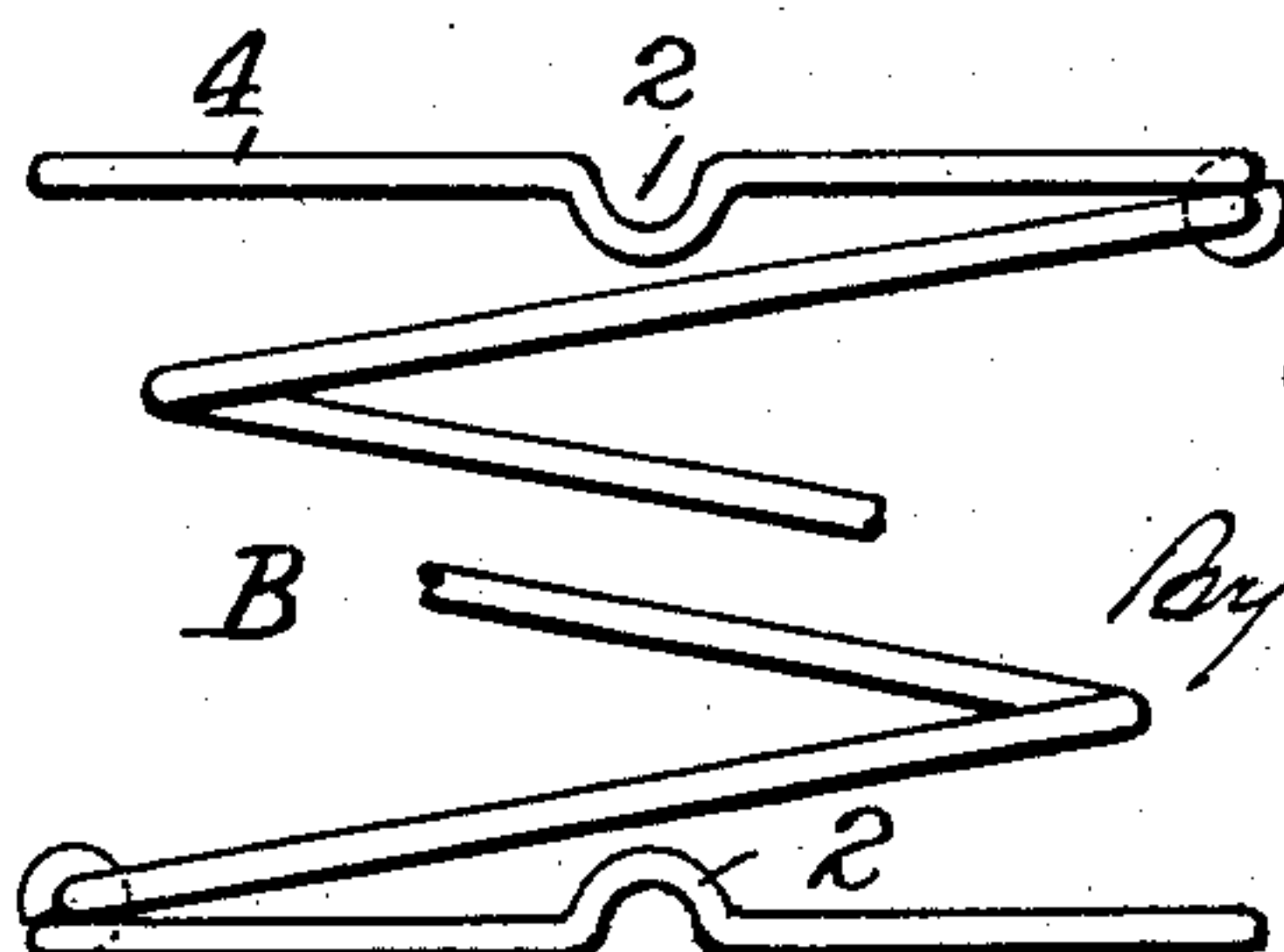


Fig. 3.



Witnesses  
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# UNITED STATES PATENT OFFICE.

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## SPRING-BED.

SPECIFICATION forming part of Letters Patent No. 753,698, dated March 1, 1904.

Application filed April 6, 1903. Serial No. 151,344. (No model.)

*To all whom it may concern:*

Be it known that I, ISAAC H. HAAS, a citizen of the United States, residing at Atlanta, in the county of Fulton and State of Georgia, have  
5 invented certain new and useful Improvements in Spring-Beds, of which the following is a specification.

This invention relates to bed-bottoms; and it consists in a certain construction of springs  
10 and construction and arrangement of cross-wires as will connect the parts in a manner to preserve their relative positions without interfering with the desired vertical play of the springs, as fully set forth hereinafter and  
15 illustrated in the accompanying drawings, in which—

Figure 1 is a perspective view showing the bottom rings of two adjacent springs with the cross rods or wires and part of the frame.  
20 Fig. 2 is a plan view of the same parts; Fig. 3, an edge view of one of the springs.

The bed-bottom has the upper and lower frames A, as usual, between which suitable coiled springs B are arranged in separated  
25 rows, each spring terminating at each end in a ring 4, and each ring is bent at one side to form a loop 2, extending upward or downward at right angles to the plane of the ring and of such a size as to permit of the passage  
30 of the cross-wire 5, extending centrally across all of the separated springs of one row and connected at the ends to the frame, to which also the rings of the springs adjacent to the frame are connected by links 7. Each ring  
35 in each series is engaged by two other wires 6 6, extending, however, tangentially to the different rings at right angles to the wires 5 5. Each wire 6 has a lateral loop 3, each of which extends through one of the rings, crosses the  
40 space between it and the next ring, and is coiled or lapped round the latter and bent inward—that is, bent upward in the case of the rings at the base of the bed-bottom and downward in the case of the rings at the top of the bed-  
45 bottom, although these positions may be reversed. The end of each loop 3, as thus lapped or coiled round the adjacent ring 4,

constitutes an eye 12 or minor terminal loop, and the cross-wire 5 extends through this eye.

By the arrangement described I secure a very firm connection between the loops of each wire 6 and the rings round which the ends of the loops are lapped. It will be seen  
50 that by this connection each cross-wire 5 is prevented from playing laterally by passing  
55 through the loop 2 of each ring and is firmly bound to the opposite side of said ring and held tightly against the edge thereof by the  
60 minor loop or eye 12, and it will be seen, further, that on depressing either spring the bearing of the eye 12 upon the cross-bar 5 tends to render the loop 3 more rigid and to  
65 secure more of a spring action than would otherwise result. This is especially advantageous at the base of the bed-bottom, as it tends to prevent the loops 3 from swinging  
70 downward so readily and gives a more rigid support, while not impairing the desired elasticity of the structure as a whole. It will  
75 also be seen that the parts are so bound together that there is no tendency of the rings to turn or swing laterally independently of each other, while they can yield vertically to the desired extent.

Without limiting myself to the construction shown, I claim—

In a bed-bottom, the combination of series of separated springs terminating in rings, each bent to form a loop 2, cross-wires 6 having  
80 loops 3, each engaging one of the rings, extending across the space between said ring and the adjacent ring, and lapped round the latter to form a loop 12 projecting upward above the ring, and cross-wires 5 extending  
85 through the loops 2 and 12 of the rings in line with each other, substantially as set forth.

In testimony whereof I have signed my name to this specification in the presence of two subscribing witnesses.

ISAAC H. HAAS.

Witnesses:

JACOB R. HAAS,  
D. GIDNEY.